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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/034,169

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Tadashi Sugiyama

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EXAMINER

SELLERS, DANIEL R

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 07/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,169

Applicant(s)

SUGIYAMA, TADASHI

Examiner

Daniel R. Sellers

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112–2nd paragraph

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 1-3** are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The claims recite the functional limitation of “such that the digital audio data stored on said storage section can not be accessed by any other processing operation other than said write operation”. In light of this limitation, the omitted elements are: the indication that such “other processing operations” involve the checking of the “erasure state flag” or erasing digital audio data, such that its modification results in their inoperability. The applicant’s statement of “can not be accessed by any processing operation other” hinges on the concept of all other operations, as a part of their attempts to access the correlated audio data, check this “erasure state flag” (thus resulting in the file being “treated” as erased, per page 15, lines 20-24). However, if one of these “other processing operations” does not involve the checking of the “erasure state flag”, or permitted the flag to be ignored, then such “treatment” as erased would not be effectuated (similar to the operation of the write process). Accordingly, a limitation in the claimed apparatuses that the “other processing operations” check this erasure state flag as part of their processing procedures is critical to the cooperative relationships of elements, particularly the “cannot be accessed by *any processing operation other*” limitation. As such, the

presented claims fail to distinctly claim the subject matter which the applicant regards as his or her invention.

3. **Claims 1 and 3** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims each recite the "such that the digital audio data stored on the said storage section can not be accessed by any other processing operation other than said write operation". However, after such a "first" control or operation and "after completion of the writing of the digital audio data", the control section "then erases". Thus, the digital audio data can be accessed for purposes of erasing or an erase operation, even though a preceding limitation states that such access, so far as it is given its broadest reasonable interpretation consistent with the specification, is not possible. The operations and the descriptive nature of these operations in Claims 1 and 3 therefore conflict with each other. Accordingly, the presented claims fail to distinctly claim the subject matter which the applicant regards as his or her invention.

Appropriate correction or clarification for each of these rejections is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al (USPN 5764607) in view of Fukuda (USPN 6469239 B1) and Berstis et al (USPN 6282653). Hereafter, "Maeda et al" will be referred to as "Maeda" and "Berstis et al" will be referred to as "Berstis".

Maeda discloses a system for controlling digital copying of digitally recorded information. The system may be applied to compact disc (CD) as well as other disc and tape formats (col. 9, lines 31-36).

5. Specifically regarding **Claim 1**, Maeda discloses:

A digital-audio-signal recording apparatus (Figure 1A-1C, col. 4, lines 49-58) comprising:

a storage section (A) storing digital audio data (music information recorded on disk 1, col. 4, lines 25-31 and 49-65);

a write section (B) that writes ("digitally recorded") data on a disk-shaped storage medium (22)(col. 4, lines 49-65; col. 7, lines 17-21 and 59-66); and

a control section (10)(col. 4, lines 52-58) that,
when a write operation (Figures 4 and 6) to be performed by said write section (B) for writing the digital audio data stored on said storage section (A, stored on disc 1), to the disk-shaped storage medium (22) (col. 6, lines 28-36; col. 9, lines 15-22),

first performs control (S35) such that the digital audio data stored on said storage section can not be accessed by any other processing operation than said write operation (existence of data is recognized only by management information in TOC(11), col. 8, lines 24-32 and 55-59; col. 9, lines 2-8 and 15-20)

then causes said write section (B) to write (S41-S43) the digital audio data (on 1 in A) to the disk-shaped storage medium (22)(col. 7, lines 60-67; col. 8, lines 1-5; col. 9, line 18),

While Maeda notes that the original audio information may be erased (col. 9, lines 26-30), Maeda does not clearly specify:

- then erases the digital audio data from said storage section after completion of writing of the digital audio data to the disk-shaped storage medium.
- wherein file management information on said storage section corresponding to said written digital audio data is updated to reflect the write operation performed.

Fukuda teaches a system for managing the copying of audio data between a hard disc (10 in 50) and a recording apparatus (70)(col. 4, lines 6-12; col. 5, lines 17-39).

Specifically regarding Claim 1, Fukuda teaches:

then erases (S46) the digital audio data from said storage section (50 and 10 of Fukuda in view of A and 1 of Maeda) after completion of writing of the digital audio data to the disk-shaped storage medium (S45)(Figure 9, col. 18, lines 60-67, col. 19, lines 1-26 and 43-51, noting that Fukuda discloses erasing as an alternative to inhibition marking therein).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to delete or erase the original music information from the recording

source A in the system of Maeda after recording the music information in section B, as is taught in step S46 for the system of Fukuda. The motivation behind such a modification would have been that such deleting would have more than merely inhibited the access or reproduction of the music data by the use of secondary information by erasing the data itself, managing the data so that only one copy always exists and preventing an illegal copy of the music data, as is taught by Fukuda. File deletion is also known in the art to free the memory area for other use or allocation, as is evidenced by in the teachings of Shitara et al (USPN 6434103 B1)(see col. 29, lines 52-59).

While Fukuda notes that the original audio information is erased (col. 9, lines 26-30), Fukuda does not clearly specify:

- wherein file management information on said storage section corresponding to said written digital audio data is updated to reflect the write operation performed.

Berstis teaches file management information that is updated to reflect a write operation (Col. 2, lines 34-62 and Col. 3, lines 18-24)

Specifically, Berstis teaches a copy control method that updates a count of a number of permitted copies of a digital file that can be transferred (Col. 8, lines 56-64).

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to update the file management information as in Berstis. The motivation behind such a modification would have been that a count of a number of permitted copies, or file management information, would allow the combination of

Maeda and Fukuda the latitude to incorporate a method of copyrights management to control the permitted copies of a file in a system and collect royalties (Berstis, Col. 2, lines 42-46 and 63-67).

6. Regarding **Claim 3**, Maeda in view of Fukada teaches or at least suggests:

A digital-audio-signal recording apparatus (Figure 1A-1C, col. 4, lines 49-58 of Maeda) comprising:

a storage section (A) storing digital audio data (music information recorded on disk 1, col. 4, lines 25-31 and 49-65 of Maeda);

a write section (B) that writes ("digitally recorded") data on a disk-shaped storage medium (22)(col. 4, lines 49-65; col. 7, lines 17-21 and 59-66 of Maeda); and

a control section (10)(col. 4, lines 52-58 of Maeda) that,
when a write operation (Figures 4 and 6 of Maeda) is to be performed by said write section (B) for writing the digital audio data stored on said storage section (A, stored on disc 1), to the disk-shaped storage medium (22) (col. 6, lines 28-36; col. 9, lines 15-22 of Maeda),

first sets an erasure state flag (music number in management information, col. 4, lines 31-34) within file management information (all additional information in TOC on disc 1) to an erased state (former data representing the music number is erased, col. 8, lines 24-26)(so far as the data in the management information for track 3 includes a music number, which is at least a part of the indication of the existence or non-erasure state of track 3, the music number data or bits for track 3 meet the structural

requirements of the claimed "erasure state flag"; so far as this number is erased or otherwise altered or voided, this meets the structural requirements, as far as mandated by a reasonable interpretation in light of the specification of the limitation of 'sets... to an erased state', when considered in view of the context of the system of Maeda)

such that the digital audio data stored on said storage section can not be accessed by any other processing operation than said write operation (existence of data is recognized only by management information in TOC(11), col. 8, lines 24-32 and 55-59; col. 9, lines 2-8 and 15-20)

then causes said write section (B) to write (S41-S43) the digital audio data (on 1 in A) to the disk-shaped storage medium (22)(col. 7, lines 60-67; col. 8, lines 1-5; col. 9, line 18 of Maeda), and

then erases (S46 of Fukuda) the digital audio data from said storage section (50 and 10 of Fukuda in view of A and 1 of Maeda) after completion of writing of the digital audio data to the disk-shaped storage medium (S45)(Figure 9, col. 18, lines 60-67, col. 19, lines 1-26 and 43-51)

Regarding the limitations of this claim, it is noted that incorporating further definition of the claimed 'erasure state flag'(such as the binary values associated with the possible 'states', its inclusion among other information in a subcode, other defining characteristics, etc.) as part of the claim language may provide the necessary distinction from the grounds which have been applied above. At present, such a limitation is subject to a broad, reasonable interpretation, while yet defining the limitation in a manner consistent with the specification. While this statement has been provided in an

attempt to further prosecute the application, such a suggestion is not to be construed as an indication of future patentability, as, upon formal entry of any such amendment, further search and or consideration may be required.

7. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda in view of Fukuda and Berstis as applied to claim 1 above, and further in view of Shitara et al (USPN 6434103 B1), hereafter "Shitara".

As detailed above, Maeda discloses a system for controlling digital copying of digitally recorded information. The system may be applied to compact disc (CD) as well as other disc and tape formats (col. 9, lines 31-36). Fukuda teaches a system for managing the copying of audio data between a hard disc (10 in 50) and a recording apparatus (70)(col. 4, lines 6-12; col. 5, lines 17-39).

Specifically regarding **Claim 2**, Maeda in view of Fukuda teaches or at least suggests:

A digital-audio-signal recording apparatus (Figure 1A-1C, col. 4, lines 49-58 of Maeda) comprising:

a storage section (A) storing digital audio data (music information recorded on disk 1, col. 4, lines 25-31 and 49-65 of Maeda);

said storage section (A) also storing second information (in 1a) for limiting access to the digital audio data (TOC 11)(col. 4, lines 26-30; col. 8, lines 28-32)

a write section (B) that writes ("digitally recorded") data on a disk-shaped storage medium (22)(col. 4, lines 49-65; col. 7, lines 17-21 and 59-66 of Maeda); and

a control section (10)(col. 4, lines 52-58 of Maeda) that,

when a write operation (Figures 4 and 6 of Maeda) is to be performed by said write section (B) for writing the digital audio data stored on said storage section (A, stored on disc 1), to the disk-shaped storage medium (22) (col. 6, lines 28-36; col. 9, lines 15-22 of Maeda),

first rewrites said second information (TOC) into content (1a area)(S35-S37 of Maeda) such that the digital audio data stored on said storage section can not be accessed by any other processing operation than said write operation (existence of data is recognized only by management information in TOC(11), col. 4, lines 26-30, col. 8, lines 24-32 and 55-59; col. 9, lines 2-8 and 15-20 of Maeda)

then causes said write section (B) to write (S41-S43) the digital audio data (on 1 in A) to the disk-shaped storage medium (22)(col. 7, lines 60-67; col. 8, lines 1-5; col. 9, line 18),

Berstis teaches file management information that is updated to reflect a write operation (Col. 2, lines 34-62 and Col. 3, lines 18-24)

As noted above, Fukuda teaches erasing (S46) the digital audio data from said storage section (50 and 10 of Fukuda in view of A and 1 of Maeda) after completion of writing of the digital audio data to the disk-shaped storage medium (S45)(Figure 9, col. 18, lines 60-67, col. 19, lines 1-26 and 43-51, noting that Fukuda discloses erasing as an alternative to inhibition marking therein).

However, Maeda, Fukuda, and Berstis do not provide details regarding this erasing process.

Specifically regarding Claim 2, Maeda in view of Fukuda and Berstis and does not specify:

- said storage section also storing first information for managing presence of the digital audio data
- after completion of writing of the digital audio data the disk-shaped storage medium, rewrites said first information into content such that the presence of the digital audio data is invalidated.

Shitara teaches a system for utilizing management data to control the processing of main audio data on a storage medium.

Specifically regarding Claim 2, Shitara teaches or at least suggests:

- said storage section also storing first information ("invalidity flag") for managing presence of the digital audio data (col. 30, lines 15-18)
- after completion of writing of the digital audio data to the disk-shaped storage medium (after S45 of Fukuda in view of s42-44 of Maeda), rewrites said first information (invalidity flag set to "1") into content (additional information file to be deleted in Shitara in view of music data to be deleted in Fukuda) of music data of such that the presence of the digital audio data is invalidated (col. 29, lines 40-45; col. 30, lines 15-26).

As detailed above, Fukuda teaches that the music data may be deleted (s46). As taught by Shitara, the adjustment of an invalidity flag associated with the additional information file results in the file being erased (col. 30, lines 15-18). To one of ordinary skill in the art at the time the invention was made, it would have been obvious to utilize such an invalidity flag with the music data of Maeda in view of Fukuda and Berstis for the purposes of enabling music data erasure, as is taught for a file by Shitara. The motivation behind such a modification would have been that such a invalidity flag would have enabled deletion processing of the music data to be implemented without manipulating the whole unit of music data, thus not increasing the processing load of the operation. Such a form of deletion is noted by Shitara as comprising very simple processing (col. 34, lines 31-40).

Response to Arguments

8. Applicant's arguments filed 4/3/06 have been fully considered but they are not persuasive.

9. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the limitations "can not be accessed by any processing operation other than said write operation", it is noted that incorporating further definition of the claimed "can not be accessed" as part of the claim language may provide the necessary distinction from the grounds which have been applied above. At present, such a

limitation is subject to a broad, reasonable interpretation, while yet defining the limitation in a manner consistent with the specification.

Davy (USPN 5,655,119) teaches a method of moving an open file in a file system. Previous to Davy's invention it is common for a file system to deny access to a file while open (i.e. can not be accessed by any processing operation other than said read/write operation by a program) or to deny access while a write process moves a file between data storage and a disc shaped medium (i.e. can not be accessed by any processing operation other than said write operation). (Col. 1, lines 16-52).

While this statement has been provided in an attempt to further prosecute the application, such a suggestion is not to be construed as an indication of future patentability, as, upon formal entry of any such amendment, further search and or consideration may be required.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Davy, USPN 5,655,119 (Col. 1, lines 16-52)


11. Technology Center 2600 has undergone restructuring as of March 19, 2006. Any **further communication** regarding this application should **indicate the new Art Unit 2615** (old art unit 2644).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 571-272-7528. The examiner can normally be reached on Monday to Friday, 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571)272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DRS



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SUPERVISORY PATENT EXAMINER